

BSE Detection in Indiana

Indiana State Board of Animal Health Technical Bulletin RC-2.97

The Facts

- CJD strikes people worldwide at an average of one in 1 million, regardless of the presence of BSE or Scrapie.
- BSE has never been diagnosed in the United States.

In the recent years, Bovine Spongiform Encephalopathy (BSE) has touched everyone in animal agriculture. While U.S. livestock producers haven't had to deal with the disease directly, they have had to contend with a very strong, very negative public reaction to what's commonly called "mad cow disease."

At least two times, widely publicized rumors of BSE-tainted meat infecting humans sent beef prices crashing even though the disease has never been diagnosed in America. Such rapid, strong market reactions illustrate the importance of educating consumers and strengthening public confidence in U.S. meat.

That's why cattle producers need to know how they can help keep the United States free of BSE. And, at the same time, reassure the public about the safety of beef.

National BSE Surveillance

Over a decade ago, USDA officials took the first step toward protecting the U.S. beef supply. This included special training for veterinarians. In 1989, all live animals and animal products were banned from countries reporting BSE. USDA protection efforts went further in 1990 with the creation of

a nationwide BSE surveillance program. Beginning in early 1991, producers and renderers were asked not to include sheep and sheep by-products with other materials rendering.

The goal of the surveillance program is to gather, then test for BSE, the brains of all cattle exhibiting signs of a central nervous system (CNS) disorder. To date, over 6,500 cattle nationwide, including 48 Indiana animals, have undergone surveillance testing. Several hundred other Hoosier cattle have been tested unofficially yet none has tested positive for the disease. Those figures stand as scientific proof to a concerned public that U.S. beef is wholesome and BSE-free.

How can cattlemen get involved? By testing every cow showing BSE-like symptoms. Scientifically evaluating all suspect animals is essential to verifying America's free status (and catching the disease early, should a case arise). Brain samples, submitted by a veterinarian for BSE analysis, are tested free-of-charge at the Animal Disease Diagnostic Laboratories (ADL) based at Purdue University. The results are reported to the practitioner for follow-up with the producer, and forwarded to the USDA as statistical data.

When to Test

Because several very different central nervous system disorders can generate similar symptoms, cattle producers need to resist the temptation to diagnose the problem themselves or ignore various visible signs as unimportant.

Common signs of CNS disorders include mobility problems, like stumbling or wobbling; a lack of sure-footedness; and difficulty turning or getting trapped in corners. Animals may show inco-ordinated aggression

of Health. If the brain tests negative, it can be forwarded to either the Animal Disease Diagnostic Laboratory at Purdue University or the National Veterinary Services Laboratory in Ames, Iowa. Either facility will be able to assist with diagnosis.

For More Information

Producers who have questions about BSE or central nervous system disorders may contact the Indiana State Board of Animal Health, USDA's Animal and Plant Health Inspection Service (APHIS), the Animal Disease Diagnostic

and/or bellow at a different pitch or intensity. Any combination of these signs warrants an examination by a veterinarian.

Central nervous system disorders can indicate diseases as common as listeriosis or as exotic as BSE (although a case has never been found in this country). Particularly threatening infections like rabies (which has other serious public health concerns) can also produce similar symptoms. Likewise, external factors such as pesticide poisoning can mimic BSE's symptoms.

A producer's best course of action is to seek the opinion of a local veterinary practitioner, who may recommend more extensive testing to identify the cause. When rabies is suspected, the brain should be submitted to the rabies lab at the Indiana State Department

Laboratory at Purdue University or a local veterinary practitioner.

CNS Disorder Symptoms

These symptoms should not be ignored, and warrant a veterinary examination:

- Stumbling, wobbling
- Lack of sure-footedness
- Difficulty turning or getting trapped in corners
- Incoordinated aggression
- Bellowing at different pitch or intensity

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